

Heart of a Tiger: FHSU's Cybersecurity Institute and Technology Incubator shaping the future for students and businesses

10/25/24

By Tisa Mason

HAYS, Kan. - As October marks Cybersecurity Awareness Month nationwide, Fort Hays State University (FHSU) stands at the forefront of cybersecurity education and innovation through its Cybersecurity Institute and Technology Incubator (CITI). Focused on enhancing the cybersecurity landscape, CITI is poised to not only elevate the cybersecurity posture of Kansas but also to foster business ventures that leverage technological advancements in the region.

CITI's mission is to leverage the distinctive strengths of FHSU to advance the Kansas economy, particularly in asset preservation and entrepreneurial development. "Our goal is to collaborate with local community partners to build a robust cybersecurity framework and fortify defenses against the growing cyber threats that impact small and medium-sized businesses across the state," said Jason Zeller, CITI's operations director.

Central to CITI's efforts lies a commitment to developing a pipeline of skilled cybersecurity professionals capable of empowering local businesses. The institute actively promotes micro-internships, which allow students to engage with real-world projects that enhance the cybersecurity readiness of local businesses. Through this innovative approach, CITI bridges the gap between theoretical knowledge and practical application, enabling students to apply their learning meaningfully.

Gage Giffin, a sophomore from Sedgwick, Kansas, became aware of CITI during a Cybersecurity Club meeting and quickly seized the opportunity for a summer micro-internship. "My experience as a lab assistant in the CITI CyberLab has been invaluable. I maintain computers, manage server applications, and build cybersecurity testing environments. I've explored vital areas like firewalls and virtualization security, which has paved the way for a promising career in DevOps—a critical sector in cybersecurity," Gage said.

Caden Mayer, another sophomore and fellow CyberLab assistant, has also made significant contributions by helping to establish infrastructure and support environments for other students. Recognizing the vital role of education in preparing future cybersecurity professionals, Caden said, "This semester, I've taught Hays High School students about servers and their applications. Understanding cybersecurity is essential—it's everywhere, and being proactive is crucial."

Through micro-internships, CITI offers various services to meet the diverse needs of businesses seeking cybersecurity support. These services include website development, security reviews, basic and advanced network setup, and vulnerability assessments. These services will help local businesses understand and rectify their cybersecurity posture, a need that Chance Anderson—a graduate assistant at CITI—has recognized through his experiences.

Chance chose FHSU for its unique offerings, stating, "The people here make FHSU exceptional. The professors genuinely care about my success. Additionally, pursuing my bachelor's and

graduate degrees with minimal debt is a significant advantage. Our cybersecurity program emphasizes real-world application, allowing ample hands-on experience rather than endless textbook readings. I've honed technical and soft skills, learning that every business presents unique challenges requiring tailored cybersecurity solutions."

Reflecting on his experiences, Chance explains, "I've encountered many local businesses that lack essential cybersecurity resources, and it's our role at CITI to address these gaps. We're here to help navigate the increasingly complex cybersecurity landscape." Drawing on his leadership background as a former president of the Cybersecurity Club, he underscores the need to connect student talent with community requirements, ensuring no local business remains vulnerable to cyber threats.

Despite CITI's robust initiatives, challenges persist, particularly in getting the word out to small businesses about the available support. FHSU is actively seeking a Business Relations Director to amplify awareness of CITI's offerings. Our greatest obstacle is effectively reaching out to companies to show them that we're ready and equipped to support their IT and cybersecurity needs.

While micro-internships are the foundation for student engagement, CITI emphasizes venture creation through its in-residence business incubator. The incubator is designed to cultivate tech and cybersecurity startups that can flourish within Kansas. CITI aims to transform innovative ideas into successful business ventures by providing specialized guidance and support.

Jason said the incubator will initially focus on nurturing one to two startups with potential future referrals to the Small Business Development Center (SBDC) as they mature. He said, " Our mission is to facilitate the development of new businesses in sectors that align with Kansas's unique opportunities."

As Cybersecurity Awareness Month highlights the critical need to protect digital assets, CITI's initiatives align perfectly with the broader mission to foster a secure digital community. The institute's strategy balances education, community outreach, and business development, illustrating a comprehensive approach to bolster local businesses and empower students.

Moreover, CITI's dedicated faculty and staff remain passionate about the future of cybersecurity education and the growing professional opportunities it presents. With more than 700,000 job openings in the United States, the demand for cybersecurity experts is expanding rapidly. FHSU's cybersecurity program equips students with the foundational knowledge and hands-on skills necessary to tackle real-world challenges effectively.

Among CITI's offerings, students can pursue either a Bachelor of Science or a Bachelor of Arts in Information Networking and Telecommunications, with a concentration in cybersecurity, or opt for a Master of Professional Studies in Cybersecurity. The curriculum is meticulously crafted to prepare students for various professional certifications, including Cisco Certified Network Associate (CCNA) and Palo Alto Networks Network Security Administrator (PCNSA). This robust training ensures graduates are well-equipped to navigate the increasingly competitive job market.

As Cybersecurity Awareness Month prompts organizations and individuals to elevate their vigilance against cyber threats, CITI stands as a beacon of support and innovation in Kansas. By leveraging FHSU's educational resources, fostering entrepreneurship, and enhancing

community engagement through student internships, CITI is transforming the region's cybersecurity landscape and nurturing the next generation of industry leaders.

The future is bright with dedicated students like Gage Giffin, Caden Mayer, and Chance Anderson leading the charge. They embody the vibrant ethos of CITI and its unwavering commitment to effecting tangible impact within the cybersecurity landscape in Kansas. As they continue on their paths, these students represent just a fraction of the potential that CITI holds—a potential that promises to contribute significantly to both local businesses and the field of cybersecurity in the years ahead.

– end –